

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF HAWAII

In the Matter of the Application of)  
HAWAII ELECTRIC LIGHT COMPANY, INC.)  
For Approval of Power Purchase )  
Contract with Hawi Renewable )  
Development, Inc. and Approval to )  
Commit Funds in Excess of \$500,000 )  
for HELCO-Owned Interconnection )  
Facilities. )

DOCKET NO. 02-0145

RECEIVED  
2003 JAN 14 A 11:26  
DIV. OF CONSUMER ADVOCACY  
DEPT. OF COMMERCE AND  
CONSUMER AFFAIRS  
STATE OF HAWAII

DECISION AND ORDER NO. 19953

Filed Jan. 14, 2003  
At 9:00 o'clock A.M.

Karen Higashi  
Chief Clerk of the Commission

ATTEST: A True Copy  
KAREN HIGASHI  
Chief Clerk, Public Utilities  
Commission, State of Hawaii.

K. Higashi

OF THE STATE OF HAWAII

HAWAII ELECTRIC LIGHT COMPANY, INC.)

For Approval of Power Purchase )  
Contract with Hawi Renewable )  
Development, Inc. and Approval to )  
Commit Funds in Excess of \$500,000 )  
for HELCO-Owned Interconnection )  
Facilities. )

Decision and Order No. 19953

I.

By an application filed on June 6, 2002, HAWAII ELECTRIC LIGHT COMPANY, INC. (HELCO) requests: (1) approval of the Power Purchase Contract dated January 8, 2001 (PPA), by and between HELCO and Hawi Renewable Development, Inc. (HRD); (2) authorization to include the purchased energy costs that HELCO incurs under the PPA in HELCO's Energy Cost Adjustment Clause (ECAC); (3) a determination that the energy charges to be paid by HELCO are reasonable; (d) a determination that the purchased power arrangements under the PPA, pursuant to which HELCO purchases energy from HRD, are prudent and in the public interest; and (e) approval of the commitment of approximately \$883,000 for the HELCO-owned interconnection facilities, in accordance with paragraph 2.3.g.2 of the commission's General Order No. 7, Standards of Electric Utility Service in the State of Hawaii (General Order No. 7).

HELCO served copies of the application on the Division of Consumer Advocacy, Department of Commerce and Consumer Affairs (Consumer Advocate).

By Order No. 19551, filed on September 4, 2002, the commission suspended the 90-day review period<sup>1</sup> for the commission to take action on HELCO's application, to allow the Consumer Advocate and the commission additional time to complete their respective reviews of the application.

On November 8, 2002, the Consumer Advocate issued information requests to HELCO, to which HELCO responded on November 22, 2002.

By position statement filed on December 13, 2002, the Consumer Advocate stated that it does not object to the commission's approval of the instant application.

## II.

### A. Parties to the PPA

HELCO is a corporation duly organized under the laws of the Republic of Hawaii on or about December 5, 1894, and now exists under and by virtue of the laws of the State of Hawaii. HELCO is an operating public utility engaged in the production, purchase,

---

<sup>1</sup>Paragraph 2.3.g.2 of General Order No. 7 provides that if the commission does not act on a public utility's application and render a decision and order within 90 days of filing, the utility will be allowed "to include the project in its rate base without the determination by the [c]ommission required by this rule."

transmission, distribution, and sale of electricity on the island of Hawaii.

HRD is a California corporation registered to do business in the State of Hawaii. HRD was formed for the primary purpose of developing the HRD wind site and is presently in the initial stages of developing other mainland wind sites.

#### B. HRD's Wind Facility

The HRD facility (wind farm), located at Upolu Point Road, Hawi, Hawaii,<sup>2</sup> will employ eight 660 kilowatt (kW) Vestas Wind Systems A/S model V47 wind turbines. HRD will operate its small power production facility as a non-fossil fuel producer and is required to designate its wind farm as a "qualifying facility"<sup>3</sup> no later than the In-Service Date.<sup>4</sup> HRD is responsible for the acquisition of all permits and licenses required for the construction and operation of the wind farm.

While HRD intends to design, construct, own, operate, and maintain<sup>5</sup> the estimated 5.28 megawatt (MW) wind farm, the PPA

---

<sup>2</sup>HRD signed a lease agreement with Surety Kohala Corporation for use of the land where the wind farm will be situated.

<sup>3</sup>Qualified facilities are defined in the Public Utility Regulatory Policies Act of 1978, as amended (PURPA), the rules of the Federal Energy Regulatory Commission (FERC), as codified in Part 292, Title 18 of the Code of Federal Regulations, and in the commission's Standards for Small Power Production and Cogeneration in the State of Hawaii, as codified in Chapter 74, Title 6 of the Hawaii Administrative Rules.

<sup>4</sup>The In-Service Date is defined in Appendix F to the PPA.

<sup>5</sup>HRD intends to provide the operations and maintenance services with the assistance of Site Constructors, Inc. a California corporation licensed to do business in Hawaii.

provides HELCO with the opportunity to review and comment on the design of the wind farm. In addition, HRD will construct, operate and maintain a switching station for its wind farm. HELCO, or a contractor acceptable to HELCO, will construct, operate and maintain all HELCO-owned interconnection facilities required to interconnect HELCO's system with HRD's wind farm. HRD is required to pay for the actual cost of the HELCO-owned interconnection facilities.

C. Energy Prices and Avoided Costs

HRD's on-peak and off-peak energy prices will be 100 per cent of HELCO's on-peak and off-peak avoided energy cost payment rates applicable at the time the energy is delivered, as shown by HELCO's avoided energy cost data filed with the commission, pursuant to Hawaii Administrative Rules (HAR) § 6-74-17(b).<sup>6</sup> The PPA does not provide minimum purchase rates.

The commission reviewed the application and energy prices under Hawaii Revised Statutes (HRS) § 269-27.2 and subchapter 3 of HAR Chapter 74, Title 6.

HRS § 269-27.2 provides that the commission must determine a just and reasonable rate for non-fossil fuel generated electricity supplied to a public utility. In establishing the rate for purchase, the commission must abide by two criteria. The rate for purchase must be: (A) not less than 100 per cent of the utility's avoided cost; and (B) not less than the minimum purchase

---

<sup>6</sup>Avoided energy cost payment rates are filed quarterly with the commission.

price.<sup>7</sup>

Subchapter 3 of HAR Chapter 74, Title 6 governs the arrangements between electric utilities and qualifying cogeneration and small power production facilities under § 210 of the Public Utilities Regulatory Policies Act of 1978, 16 U.S.C. § 824A-3 (PURPA). HAR § 6-74-22 provides that the rates shall:

- (1) Be just and reasonable to the electric consumer of the electric utility and in the public interest;
- (2) Not discriminate against qualifying cogeneration and small power production facilities; and
- (3) Be not less than one hundred per cent of avoided cost for energy and capacity purchases to be determined as provided in HAR § 6-74-23 from qualifying facilities and not less than the minimum purchase rate.

The Consumer Advocate contends that the proposed energy rates appear to be reasonable as the rates comport with HAR § 6-74-22 and are similar to prior purchase power contracts approved by the commission.<sup>8</sup> Moreover, the Consumer Advocate asserts that while the PPA does not contain the minimum purchase rates required under HAR § 6-74-22, the avoided cost information

---

<sup>7</sup>"Minimum purchase rate" is defined in HAR § 6-74-1 as the avoided energy costs determined in accordance with HAR chapter 6-74 as in effect on the date that a legally enforceable obligation between the qualifying facility and the utility becomes effective.

<sup>8</sup>See, Decision and Order No. 11611, filed on May 7, 1992, in Docket No. 6944; Decision and Order No. 11333, filed on October 28, 1991, in Docket No. 6956; and Decision and Order No. 11366, filed on November 29, 1992, in Docket No. 7023.

filed with the commission, pursuant to HAR § 6-74-17(c), may be used to establish the minimum purchase rates.

Upon careful review of the record, the commission finds that the avoided costs and the methodology that will be used to determine the resulting PPA energy prices are just, reasonable, in the public interest, and will comply with HAR § 6-74-22. Accordingly, we conclude that the energy charges to be paid by HELCO, pursuant to the PPA, should be approved.

#### D. General Terms of the PPA

##### 1. PPA Term

The term of the PPA commences upon the In-Service Date and remains in effect for an initial term of 15 years, and continues in effect after the initial 15-year term until terminated by either party. Pursuant to the terms of the PPA, HRD is required to operate its wind farm and offer energy to HELCO by an In-Service Date that is within 24 months of the "Non-appealable PUC Approval Order Date."<sup>9</sup> HELCO may declare an event of default if HRD fails to complete its wind farm and achieve its In-Service Date within such period, whether or not "Force Majeure"<sup>10</sup> interferes with the completion of the wind farm, its operation, or the sale of energy.

---

<sup>9</sup>The Non-appealable PUC Approval Order Date is defined at PPA § 10.c.

<sup>10</sup>Force Majeure is defined at PPA § 15.

2. Delivery of As-Available Energy and Allowed Capacity

HRD will provide energy to HELCO on an unscheduled basis as HRD determines energy to be available from its wind farm. The "Allowed Capacity"<sup>11</sup> under the PPA will be the lower of: (A) 5,280 kW; (B) the nameplate capacity (net for export) of the wind farm interconnected with HELCO's system on the In-Service Date; or (C) 3,000 kW after any part of the Kahua Wind Farm (Kahua)<sup>12</sup> initially interconnects to the HELCO system. The Allowed Capacity is limited to 3,000 kW under the circumstances stated above due to constraints resulting from the capacities of the 34.5 kilovolt (kV) line and the Waimea transformer. If Kahua installs its planned wind farm, HRD will not be able to interconnect and deliver energy from a wind farm larger than 3,000 kW using the existing 34.5 kV line as HRD has proposed, without modifications to the 34.5 kV line, the Waimea transformer and/or other parts of HELCO's transmission system.

3. Curtailment of Energy Deliveries and Disconnection

Under the PPA, HELCO has the right to temporarily curtail, interrupt or reduce deliveries of energy when necessary: (A) in order for HELCO to construct, install, maintain, repair, replace, remove, investigate, test or inspect any of its equipment or any part of its system; (B) if HELCO determines that such curtailment, interruption, or reduction is necessary because of a

---

<sup>11</sup>Allowed Capacity is defined at Appendix A, § 5.e. and Appendix F to the PPA.

<sup>12</sup>Kahua Wind Farm is defined in Appendix A, § 5.e. to the PPA.



system emergency, forced outage, or operating conditions on its system; (C) if HELCO is unable to accept deliveries of energy due to light loading conditions; or (D) if HRD's wind farm does not operate in compliance with Good Engineering and Operating Practices(GEOP)<sup>13</sup> or acceptance of energy by HELCO would require it to operate outside of GEOP.<sup>14</sup> HELCO may not interrupt deliveries solely to purchase less expensive energy from any qualified facility.

Either party to the PPA has the right to disconnect from the other party for operational and safety reasons.

#### 4. Operating Parameters and Operations

The PPA limits the wind farm's ramp rates and power fluctuation rates and ability to cause voltage flicker and harmonic distortion. Further, HRD is charged with the regulation of the voltage of the energy delivered to HELCO to a voltage or a power factor specified by HELCO's system operator.

HRD is required to operate the wind farm in accordance with GEOP. HELCO retained the right to inspect the wind farm and HRD's operation and maintenance of the wind farm.

HRD, at its own cost, must furnish, install, operate, and maintain breakers, relays, switches, synchronizing equipment, monitoring equipment and control and protective devices designated

---

<sup>13</sup>Good Engineering and Operating Practices is defined in Appendix F to the PPA.

<sup>14</sup>See, PPA § 6.a.; Amendment No. 1, Appendix B, § 2.h.

by HELCO as suitable for parallel operation of HRD's wind farm with HELCO's system.

5. Review of the PPA

The Consumer Advocate notes that the federal rules promulgated under PURPA generally govern a state utility's interconnection with small power producers. Nevertheless, the Consumer Advocate states that it is necessary to review the PPA to ensure that its conditions: (A) are reasonable; (B) will not hinder HELCO's ability to provide electric service to its customers; and (C) are not discriminatory to other small power producers.

The Consumer Advocate recommends approval of the PPA on the basis that it is reasonable. First, it again notes that the PPA includes terms and conditions that are similar to prior purchase power contracts approved by the commission.<sup>15</sup> Second, the Consumer Advocate states that the broad indemnification and insurance requirements of the PPA will serve to protect HELCO, its customers, and the public from certain risks caused by property damage, injuries to persons, or other liabilities that may arise from HRD's facility. Third, HELCO and HRD's installation, operation, and maintenance of their respective facilities and equipment in accordance with GEOP should prevent any potential "negative impact" to HELCO, its customers, and the public. Finally, the PPA allows

---

<sup>15</sup>See, Decision and Order No. 16956, filed on April 27, 1999, in Docket No. 98-0363, and Decision and Order No. 18576, filed on June 1, 2001, in Docket No. 00-0177.

both HELCO and HRD the right to disconnect from the other party for operational or safety reasons.

Upon review of the record, the commission finds that the PPA, when viewed in its entirety, is reasonable and in the public interest, is consistent with the standards set forth in HRS § 269-27.2 and HAR § 6-74-22, and should be approved. Accordingly, the commission concludes that the purchase power arrangements described in the PPA are also reasonable and in the public interest, and should also be approved.

E. Energy Cost Adjustment Clause (ECAC)

HELCO requests commission approval to include the purchased energy costs and related revenue taxes it incurs under the PPA in its ECAC. HELCO makes the request in accordance with HAR § 6-60-6(2).<sup>16</sup>

The Consumer Advocate does not object to the commission authorizing HELCO to include the purchased energy costs and related revenue taxes that HELCO incurs under the PPA in its ECAC. Upon careful review, the commission also concludes that HELCO should be allowed to include in its ECAC, the purchased energy costs and related revenue taxes that it incurs under the PPA, to

---

<sup>16</sup>HAR § 6-60-6(2) provides that:

No changes in fuel and purchased energy costs may be included in the fuel adjustment clause unless the contracts or prices for the purchase of such fuel or energy have been previously approved or filed with the commission.

the extent that such payments are not recovered in HELCO's rate base.

#### F. Interconnection Facilities

HELCO plans to construct, operate, and maintain all HELCO-owned interconnection facilities required to interconnect HELCO's system with HRD's wind farm. Pursuant to the terms of the PPA, HRD is required to pay for the actual costs of the HELCO-owned interconnection facilities.<sup>17</sup> Further, HRD will pay for any costs incurred in operating, maintaining, replacing (to the extent not covered by insurance), and relocating the interconnection facilities.

Hawaiian Electric Company, Inc.'s Energy Delivery Engineering Division prepared an interconnection requirements study (study) to: (1) determine the interconnection requirements for the proposed HRD wind farm to be connected to HELCO's transmission system on the existing Waimea-Halaula 34.5 kV circuit near Hawi; and (2) develop an estimate of the amount of energy that HELCO's system can accommodate from HRD above the 3 MW specified in the PPA. As a result of its review of the study, HELCO determined that its interconnection facilities (and their estimated costs) should include:

---

<sup>17</sup>See, Amendment No. 1, Appendix C, § 2.c. HRD is also required to obtain an irrevocable standby letter of credit to ensure that HELCO is reimbursed by HRD for HELCO-owned interconnection facilities. See, Amendment No. 1, Appendix C, § 5.

- (1) 34.5 kV overhead line and drop, which includes the installation of approximately three miles of 34.5 kV transmission line from Hawi to the interconnection point near pole 31 on Upolu Point Road and the installation of a 34.5 kV disconnect switch near pole 31 (\$488,000);
- (2) Microwave communication line, including microwave tower installation at Upolu and County of Hawaii microwave tower upgrade (\$235,000);
- (3) Remote Terminal Unit at HRD's switching station (\$40,000);
- (4) Site work and facilities at HRD's switching station, including installation of batteries and charger (\$60,000); and
- (5) Waimea Switching Station relay work, which includes the replacement of existing protective relays and associated controls (\$60,000).<sup>18</sup>

The Consumer Advocate does not object to HELCO's request to commit the funds for the interconnection facilities because HELCO needs the facilities for the transfer of energy from the HRD facility to HELCO's transmission system, and HRD will bear the costs of the construction of the facilities, operations and maintenance, and any relocation not caused by HELCO. However, the Consumer Advocate "reserves its rights to analyze these items in future rate proceedings." Further, the Consumer Advocate states

---

<sup>18</sup>HELCO advises that if the In-Service Date is not achieved within 12 months of a satisfactory "Non-appealable PUC Approval Order" or 30 months from the "PUC Submittal Date," whichever is earlier, the listing of the interconnection facilities required in the PPA will be subject to review and revision.

that the applicable parties must ensure that, in future rate proceedings:

- (1) HELCO's rate base fully recognizes an offset from HRD for all costs incurred by HELCO to construct or provide the HELCO-owned interconnection facilities;
- (2) Operation and maintenance costs associated with HELCO's interconnection facilities are offset by a reimbursement from HRD; and
- (3) Any replacement or relocation costs of interconnection facilities are reimbursed by HRD.

Upon careful review, the commission finds that HELCO's commitment of funds for the HELCO-owned interconnection facilities is reasonable and consistent with the public interest. We also find the required adjustments proposed by the Consumer Advocate to be reasonable. Accordingly, the commission concludes that HELCO's request to commit approximately \$883,000 for its interconnection facilities should be approved, subject to the conditions set forth in ordering paragraph 5 below.

### III.

#### THE COMMISSION ORDERS:

1. The PPA, as amended, by and between HELCO and HRD, dated January 8, 2001, is approved.
2. The energy charges to be paid by HELCO pursuant to the PPA are just and reasonable, and are approved.
3. The purchased power arrangements under the PPA are reasonable and in the public interest, and are approved.

4. HELCO may include, in its ECAC, the purchased energy costs and related revenue taxes that it incurs under the PPA.

5. HELCO's request for approval to commit funds of approximately \$883,000 for HELCO-owned interconnection facilities, in accordance with the provisions of paragraph 2.3.g.2. of General Order No. 7, is approved.

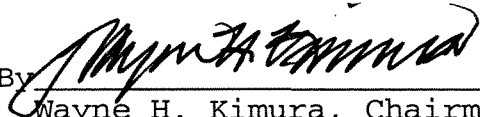
However, in future rate proceedings, HELCO and/or any other applicable party shall also make the following adjustments:

- (A) HELCO's rate base shall fully recognize an offset from HRD for all costs incurred by HELCO to construct or provide the HELCO-owned interconnection facilities;
- (B) Operation and maintenance costs associated with HELCO's interconnection facilities shall be offset by a reimbursement from HRD; and
- (C) Any replacement or relocation costs of interconnection facilities shall be reimbursed by HRD.

6. HELCO shall report within 60 days of the proposed interconnection facilities' completion, with an explanation of any deviation of 10 per cent or more in the projects costs from that estimated in the application.

DONE at Honolulu, Hawaii this 14th day of January,  
2003.


PUBLIC UTILITIES COMMISSION  
OF THE STATE OF HAWAII

By   
Wayne H. Kimura, Chairman

By   
Janet E. Kawelo, Commissioner

By (RECUSED)  
Gregg J. Kinkley, Commissioner

APPROVED AS TO FORM:

  
Catherine P. Awakuni  
Commission Counsel

02-0145.eh



CERTIFICATE OF SERVICE

I hereby certify that I have this date served a copy of the foregoing Decision and Order No. 19953 upon the following parties, by causing a copy hereof to be mailed, postage prepaid, and properly addressed to each such party.

DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS  
DIVISION OF CONSUMER ADVOCACY  
P. O. Box 541  
Honolulu, HI 96809

WARREN H.W. LEE  
PRESIDENT  
HAWAIIAN ELECTRIC LIGHT COMPANY, INC.  
P. O. Box 1027  
Hilo, HI 96721-1027

WILLIAM A. BONNET  
VICE PRESIDENT, GOVERNMENT AND COMMUNITY AFFAIRS  
HAWAIIAN ELECTRIC COMPANY, INC.  
P. O. Box 2750  
Honolulu, HI 96840

THOMAS W. WILLIAMS, JR., ESQ.  
PETER Y. KIKUTA, ESQ.  
GOODSILL ANDERSON QUINN & STIFEL  
Alii Place, Suite 1800  
1099 Alakea Street  
Honolulu, HI 96813

HAWI RENEWABLE DEVELOPMENT, INC.  
Attention: RICHARD HORN  
2286 Oroville-Chico Highway  
Durham, CA 95938

HAWI RENEWABLE DEVELOPMENT, INC.  
Attention: DAVE ABSHER  
9615 22<sup>nd</sup> CT. NW  
Seattle, WA 98117

  
\_\_\_\_\_  
Karen Higashi

DATED: January 14, 2003